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Cement and Concrete

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INDUSTRY

PROFILE

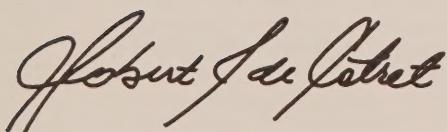
CEMENT AND CONCRETE

1988

FOREWORD

In a rapidly changing global trade environment, the international competitiveness of Canadian industry is the key to survival and growth. This Industry Profile is one of a series of papers which assess, in a summary form, the current competitiveness of Canada's industrial sectors, taking into account technological and other key factors, and changes anticipated under the Canada-U.S. Free Trade Agreement. Industry participants were consulted in the preparation of the papers.

The series is being published as steps are being taken to create the new Department of Industry, Science and Technology from the consolidation of the Department of Regional Industrial Expansion and the Ministry of State for Science and Technology. It is my intention that the series will be updated on a regular basis and continue to be a product of the new department. I sincerely hope that these profiles will be informative to those interested in Canadian industrial development and serve as a basis for discussion of industrial trends, prospects and strategic directions.



Minister

Canada

1. Structure and Performance

Structure

The cement and concrete industry comprises three distinct and regionally oriented sub-sectors. The first, *cement manufacturing*, includes firms producing the material which binds mineral aggregates, water and chemical admixtures to form concrete. In the second, *concrete products*, firms manufacture a wide range of items including concrete block, brick and pipe. The third, *ready-mix concrete*, involves the mixing and delivery of an intermediate product which is used in all types of construction.

All three sub-sectors are highly cyclical, seasonal businesses which depend on construction activity. With employment at 23 100 persons, in 1986, the industry had shipments worth \$3.2 billion, exports valued at \$231 million and imports at \$36 million. Cement manufacturing accounted for 26 percent of the value of industry shipments; concrete products 28 percent; and ready-mix concrete, 46 percent.

There is a high degree of vertical integration in the Canadian cement manufacturing sub-sector, which is very capital intensive. Thus, the dominant cement firm in a particular region is frequently also the leading ready-mix concrete manufacturer, or a major concrete products producer, or all three.

By definition, the cement manufacturing sub-sector includes all operations engaged in the manufacture of hydraulic cement, which has the property of setting or hardening under water. Hydraulic cement includes Portland, Portland-slag, slag, natural, masonry and pozzolan cement.

Portland cement is by far the most important product on the basis of volume and value. It is manufactured by burning an accurately proportioned, finely ground mixture of limestone, silica, alumina and iron oxide, usually in a rotary kiln, to form a grey granular material called clinker. The clinker is then further finely ground, with the addition of gypsum, to form a cement powder.

The cement manufacturing sub-sector had shipments valued at \$832 million in 1986. Total exports (excluding cement clinker) were worth \$135 million, 99 percent of which went to the United States. Imports, valued at over \$31 million, originated primarily from the United States. There were nine enterprises in 1986 employing 3500 persons at 24 establishments, most of which employ between 100 and 200 persons.

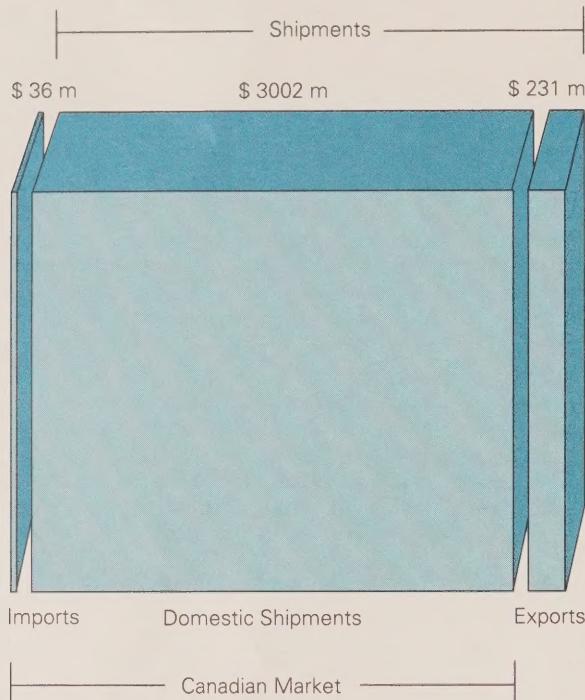
Cement plants are frequently located close to the source of raw materials, mainly limestone. The cement manufacturing sub-sector is concentrated mostly in Ontario and Quebec, which have 38 percent and 27 percent, respectively, of Canadian production capacity. The Prairie provinces have 21 percent of capacity, British Columbia nine percent and the Atlantic provinces five percent.

Because of its low value-to-weight, most cement is distributed by truck within a radius of several hundred kilometres of a plant, with the bulk of shipments sent to destinations within 100 kilometres. Export shipments to more distant destinations are only possible because of low-cost water transport. Thus, cement plants built on waterways have an advantage over inland plants.



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*Imports, Exports and Domestic Shipments
1986*

The concrete products sub-sector shipped products worth \$913 million in 1986. Exports were worth \$96 million, or about 10 percent of the value of shipments. Imports accounted for less than \$5 million in value. Trade in this sub-sector is largely between Canada and the United States.

There were 409 concrete products establishments in 1986, employing 9200 people. Most of them are small, independent Canadian manufacturers. Many of the remaining medium-sized to large establishments are owned by cement companies, the majority of which are foreign controlled.

Concrete products plants are generally located near the market and, consequently, are concentrated in central Canada. In 1986, 41 percent of the establishments were in Ontario, 26 percent in Quebec, 13 percent in the Prairie provinces, 12 percent in British Columbia and eight percent in the Atlantic provinces.

The ready-mix concrete sub-sector had shipments in 1986 worth \$1489 million from 595 establishments which employed 10 400 persons. Although it is significant, this sub-sector will not be dealt with specifically in the remainder of this profile. It is a local service, delivering ready-mix concrete from a mixing plant to a customer. International trade is negligible.

Performance

The cement and concrete industry depends on the level of construction activity. During its 100-year history in Canada, it has undergone a number of cycles of expansion, retrenchment and rationalization in response to periods of growth and recession.

The cement manufacturing sub-sector is financially healthy, although profits are cyclical. The average net after-tax profit on sales in 1985, for example, was an extraordinary 22.5 percent, as compared to 2.5 percent in 1983. The debt-to-equity ratio of cement manufacturers has also improved during this period as firms have repaid debt incurred to improve energy efficiency, increase capacity and acquire other companies.

The profitability of the concrete products sub-sector is much lower than that of the cement manufacturing sub-sector, with a 1985 average of 4.2 percent after-tax profit on sales. Companies in this sub-sector have consistently had a lower debt-to-equity ratio than cement manufacturers.

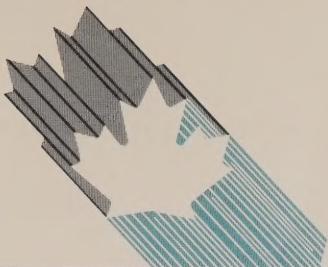
In the past decade, the cement manufacturing sub-sector has improved its productivity substantially through the introduction of larger, more efficient processing equipment and the reduction of energy and labour costs. Since cement prices have declined in constant dollar terms during the same period, better productivity has been the key to maintaining profitability. The concrete products sub-sector has been less successful in reducing costs than cement manufacturers.

2. Strengths and Weaknesses

Structural Factors

While the Canadian cement manufacturing sub-sector is domestically oriented, exports have been important to the development of the industry since the 1960s. Canadian cement manufacturers have built a strong distribution network in the United States, particularly in the eastern border states which lack sufficient local cement production capacity. Canadian and American cement manufacturers have world-scale plants and similar production costs. Proximity to the U.S. border-state market is thus a key component of Canadian cement exporters' competitiveness.

The cement manufacturers' ownership of a significant proportion of the concrete products and ready-mix concrete sub-sectors has also provided the Canadian industry with some competitive advantage by strengthening its financial base. Until recently, this degree of integration has been denied to the American industry by U.S. anti-trust legislation.



Strong foreign competition, fueled by a world surplus of cement production capacity, makes it difficult for Canadian companies to compete in offshore markets. Major cement exporters, such as Spain, Greece and the Republic of Korea, generally have lower production costs than Canada and usually have an advantage in shipping costs because of their proximity to overseas markets.

Canadian concrete products manufacturers, particularly those making architectural and pre-stressed concrete products, have been successful in expanding their markets in the United States through their entrepreneurial skills, competitive pricing and high quality. In addition, Canadian manufacturers of architectural and pre-stressed products, unlike some of their American competitors, provide a complete service, including manufacturing, transportation and on-site erection.

Canadian imports of concrete products have been relatively small because of the sub-sector's strong competitive position.

Trade-related Factors

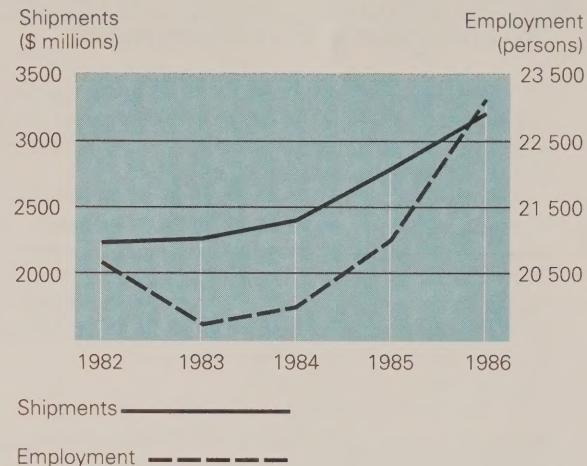
The Canadian and American Most Favoured Nation (MFN) tariffs on cement are zero, with the exception of white cement which accounts for a very small proportion of trade. The Canadian tariff on Portland white cement is 81.59¢ per tonne, while the U.S. tariff is 22¢ per tonne, including the weight of the container. The Canadian tariffs on concrete products are five to 9.8 percent, while the American tariffs range from 4.9 to 21 percent. Most Canadian exports enter the United States at the lower end of the tariff scale. The Japanese tariff for cement is 3.2 percent and 4.9 percent for concrete products. The European Community (E.C.) tariff rate is 3.2 percent for both cement and concrete products.

Canadian cement exporters are threatened by protectionist pressures in the United States aimed at the rising tide of imports. U.S. federal statutes, including the *Buy America Act*, the *Surface Transportation Assistance Act* (STAA) and the *Cargo Preference Act*, have restricted or could restrict Canadian cement exporters' access to the American market. Some states have similar legislation. In an effort to maintain access to the American market, some Canadian cement manufacturers have purchased plants in the United States.

Tariffs will be eliminated over a five-year period under the Canada-U.S. Free Trade Agreement (FTA).

Technological Factors

The Canadian cement manufacturing sub-sector uses current technology and is efficient by world standards. In comparison, the level of technology in the concrete products sub-sector varies widely. The larger companies usually have access to modern technology, but many of the small firms cannot afford it.



Total Shipments and Employment

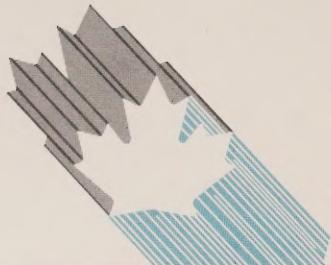
Most Canadian cement is manufactured using an energy-efficient "dry-production" process. By comparison, the American cement sub-sector has somewhat less-efficient facilities. For the most part, new technology in this sub-sector has been transferred from Europe and, more recently, Japan. Production technology is widely available and there are no obstacles to its continued importation. New technology in the concrete products sub-sector is diverse and readily available in Canada, the United States or Europe.

The domestic cement manufacturing sub-sector has invested less than 0.5 percent of the value of shipments in research and development (R&D). However, this has increased with the establishment by Lafarge Canada Inc. of a \$4-million cement and concrete products research facility in Montréal, which is the focus of Lafarge's R&D for its operations throughout North America. In addition, the Canadian cement manufacturing and concrete products sub-sectors both benefit from R&D conducted by the Portland Cement Association in the United States, funded by both Canadian and American producers.

Other Factors

Historically, the volume of Canadian cement exports to the United States has not been influenced significantly by Canada-U.S. exchange rate fluctuations. By comparison, the concrete products sub-sector is much more sensitive to such changes.

The level of demand in both the cement manufacturing and concrete products sub-sectors depends on construction activity. Changes in interest rates influence construction activity directly and, therefore, affect these sub-sectors.



3. Evolving Environment

The cement and concrete industry's prospects will be determined by the outlook for the construction industry. Any action which further ensures access to the U.S. market would be very important.

Concrete products are continuing to improve in strength, durability, impermeability and corrosion resistance. However, they face strong competition from alternative building materials, including steel, aluminum, wood and plastics. Concrete products will probably maintain their market share, but substantial improvement in demand from new product applications is not foreseen.

The competitiveness of Canadian concrete products in the United States will be enhanced by the removal of tariffs over a five-year period under the FTA.

4. Competitiveness Assessment

The Canadian cement manufacturing sub-sector is competitive in existing American markets where it is well entrenched and is expected to remain so following implementation of the FTA. The industry is not able to compete successfully in offshore markets where competition is keen and prices extremely low. Although the international competitiveness of Canadian cement manufacturers has improved recently, with some offshore exporters experiencing rising exchange rates and ocean freight costs, the potential remains for increased imports from low-cost cement producers in Europe and Asia.

The concrete products sub-sector has been successful in the American market and should maintain its competitive edge after existing tariffs are removed under the FTA. Increased imports of concrete products are not anticipated. Offshore trade is minimal.

For further information concerning the subject matter contained in this profile, contact:

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PRINCIPAL STATISTICS

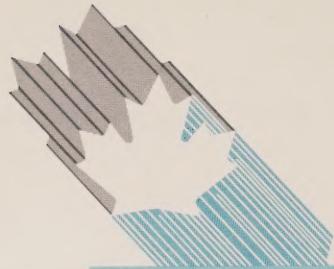
SIC(s) COVERED: 352, 354, 355 (1980)

| | 1973 | 1982 | 1983 | 1984 | 1985 | 1986 |
|---|---------|-------|-------|-------|-------|---------|
| Establishments | 819 | 1 002 | 1 017 | 1 037 | 999 | 1 028* |
| Employment ('000) | 24.8 | 20.6 | 19.7 | 20.0 | 21.0 | 23.1 |
| Shipments (\$ millions) | 1 002 | 2 241 | 2 261 | 2 443 | 2 784 | 3 233 |
| Gross domestic product (constant 1981 \$ millions) | 1 262.6 | 726.1 | 749.8 | 793.8 | 909.0 | 1 022.7 |
| Investment (\$ millions) | 209 | 222 | 190 | 205 | 252 | 245 |
| Profits after tax (\$ millions) | 87 | 138 | 77 | 223 | 411 | N/A |
| (% of sales) | 7.0 | 5.1 | 3.1 | 8.4 | 12.3 | N/A |

TRADE STATISTICS

| | 1973 | 1982 | 1983 | 1984 | 1985 | 1986 |
|--|------|-------|-------|-------|--------|-------|
| Exports (\$ millions) | 45 | 131 | 130 | 179 | 210 | 231 |
| Domestic shipments (\$ millions) | 957 | 2 110 | 2 131 | 2 264 | 2 574 | 3 002 |
| Imports (\$ millions) | 3 | 24 | 25 | 26 | 31 | 36 |
| Canadian market (\$ millions) | 960 | 2 134 | 2 156 | 2 290 | 2 605 | 3 038 |
| Exports as % of shipments | 4.5 | 5.8 | 5.7 | 7.3 | 7.5 | 7.1 |
| Imports as % of domestic market | 0.3 | 1.1 | 1.1 | 1.1 | 1.2 | 1.1 |
| Source of imports (% of total value) | | U.S. | E.C. | Japan | Others | |
| | 1983 | 98.7 | 0.4 | 0.9 | — | |
| | 1984 | 97.9 | 1.4 | 0.7 | — | |
| | 1985 | 85.1 | 3.4 | 0.5 | 11.0 | |
| | 1986 | 72.7 | 26.8 | 0.5 | — | |
| Destination of exports (% of total value) | | U.S. | E.C. | Japan | Others | |
| | 1983 | 96.0 | 0.4 | — | 3.6 | |
| | 1984 | 98.3 | 0.1 | — | 1.6 | |
| | 1985 | 99.5 | 0.1 | — | 0.4 | |
| | 1986 | 99.7 | 0.1 | — | 0.2 | |

(continued)



REGIONAL DISTRIBUTION — Average over the last 3 years

| | Atlantic | Quebec | Ontario | Prairies | B.C. |
|-----------------------------|----------|--------|---------|----------|------|
| Establishments – % of total | 8.3 | 22.2 | 33.7 | 21.7 | 14.1 |
| Employment – % of total | x | x | 38.8 | x | x |
| Shipments – % of total | x | x | 39.4 | x | x |

MAJOR FIRMS

| Name | Ownership | Location of Major Plants |
|-----------------------------|---------------|---|
| Lafarge Canada Inc. | French | Brookfield, Nova Scotia; Havelock, New Brunswick; St-Constant, Quebec; Bath and Woodstock, Ontario; Fort Whyte, Manitoba; Exshaw and Edmonton, Alberta; Kamloops and Richmond, British Columbia |
| St. Lawrence Cement Inc. | Swiss | Beauport and Joliette, Quebec; Mississauga, Ontario |
| CBR Cement Canada Ltd. | Belgian | Winnipeg, Manitoba; Regina, Saskatchewan; Edmonton, Alberta; Tilbury Island, British Columbia |
| St. Marys Cement Ltd. | Canadian | Bowmanville and St. Mary's, Ontario |
| Lake Ontario Cement Limited | French | Picton, Ontario |
| Miron Inc. | Liechtenstein | Montréal and Gros-Cacouna, Quebec |
| Ciment Québec Inc. | Canadian | St-Basile comté de Portneuf, Quebec |

* 1986 establishment data includes 24 cement plants, 409 concrete products and 595 ready-mix concrete establishments.

x Confidential

N/A Not available

Note: Statistics Canada data have been used in preparing this profile.

| | | | | | |
|---|-------|-------|-------|--------|-------|
| 1973 | 1982 | 1983 | 1984 | 1985 | 1986 |
| Exportations** | 45 | 131 | 130 | 179 | 210 |
| Expéditions interentreurs** | 957 | 2 110 | 2 131 | 2 264 | 2 574 |
| Marché interieur** | 960 | 2 134 | 2 156 | 2 290 | 2 605 |
| Importations** | 3 | 24 | 25 | 26 | 31 |
| Marché interieur** | 960 | 2 134 | 2 156 | 2 290 | 2 605 |
| Expéditions (en % des expéditions) | 4,5 | 5,8 | 5,7 | 7,3 | 7,5 |
| Importations (en % du marché interieur) | 0,3 | 1,1 | 1,1 | 1,2 | 1,1 |
| Source des importations (en %) | É.-U. | CEE | Japan | Autres | |
| Destinatation des exportations (en %) | É.-U. | CEE | Japan | Autres | |
| 1983 | 96,0 | 0,4 | — | — | 3,6 |
| 1984 | 98,3 | 0,1 | — | — | 1,6 |
| 1985 | 99,5 | 0,1 | — | — | 0,4 |
| 1986 | 99,7 | 0,1 | — | — | 0,2 |

PRINCIPALES STATISTIQUES COMMERCIALES

| | | | | | | |
|---|---------|--------|--------|--------|--------|--------------|
| Etablissements | 819 | 1 002 | 1 017 | 1 037 | 999 | 1 028* |
| Emplois | 24 800 | 20 600 | 19 700 | 20 000 | 21 000 | 23 100 |
| Expéditions** | 1 002 | 2 241 | 2 261 | 2 443 | 2 784 | 3 233 |
| Produit interieur brut*** | 1 262,6 | 726,1 | 749,8 | 793,8 | 909,0 | 1 022,7 |
| Investissements** | 209 | 222 | 190 | 205 | 252 | 245 |
| Bénéfices après impôts** (en % du chiffre d'affaires) | 87 | 138 | 77 | 223 | 411 | 12,3 n.d. |

PRINCIPALES STATISTIQUES CTI 352, 354 et 355 (1980)

4. Evaluation de la compétitivité

Le sous-secteur du ciment est compétitif sur les marchés américains où il est bien établi et il devrait le démontrer à la suite de l'entrée en vigueur de l'Accord. Les producteurs canadiens ne peuvent toutefois guère pénétrer les marchés d'outre-mer où la concurrence est vive et où les prix sont extrêmement bas. Même si la compétitivité des producteurs canadiens dépend de leur accès au plan international en raison des répercussions, de la hausse des taux de change et des frais de transport transocéanique, les importations disposeront de main-d'œuvre bon marché assurant des exportations de pays européens et pourraient cependant augmenter.

Le sous-secteur des produits de bétong a une bonne réputation sur le marché américain et devrait conserver sa compétitivité à l'accord. Les éliminations des tarifs en vertu de l'accord. Les importations de produits de bétong ne devraient pas augmenter, le commerce avec les pays d'outre-mer étant très faible dans ce domaine.

Pour de plus amples renseignements sur ce dossier, s'adresser à :

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235, rue Queen
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Tél. : (613) 954-3080

0000-tcc (s1c) : 101

3. Evolution de l'environnement

Autres tactiques

Justus-lici, les fluctuations du taux de change n'ont guère influé sur les exportations de ciment canadien aux Etats-Unis. Il en va autrement pour le sous-secteur des produits de ciment qui est très sensible à ces variations.

Dans les sous-secteurs du ciment et des produits de béton, la demande dépend de l'activité de l'industrie de la construction, aussi les fluctuations des taux d'intérêt — qui touchent directement cette industrie — ont-elles des répercussions sur l'ensemble.

aux États-Unis et en Europe de l'Ouest. Jusqu'ici, le sous-sécteur canadien du ciment a investi moins de 0,5 p. 100 de la valeur de ses expéditions dans la R-D, mais cette part devrait augmenter par suite de l'ouverture à Montréal, par la société Lafarge Canada Inc., d'un centre de recherche sur le ciment et les produits de béton. Ce centre, d'une valeur de 4 millions de dollars, regroupera les activités de R-D de Lafarge pour toute l'Amérique du Nord. En outre, les sous-sécteurs canadiens du ciment et des produits du béton profitent de la R-D réalisée aux États-Unis par la Portland Cement Association, organisme financé par les producteurs canadiens et américains.

Au Canada, les usines de ciment qui utilisent

2. Forces et faiblesses

Bien que le sous-secteur canadien du climat soit axé sur le marché intérieur, les exportations jouent un rôle important dans l'industrie.

peut un important résultat de la distribution aux Etats-Unis, notamment dans les Etats limitrophes de l'Est, ou la capacité locale de production de ciment est insuffisante. Les fabricants canadiens et américains

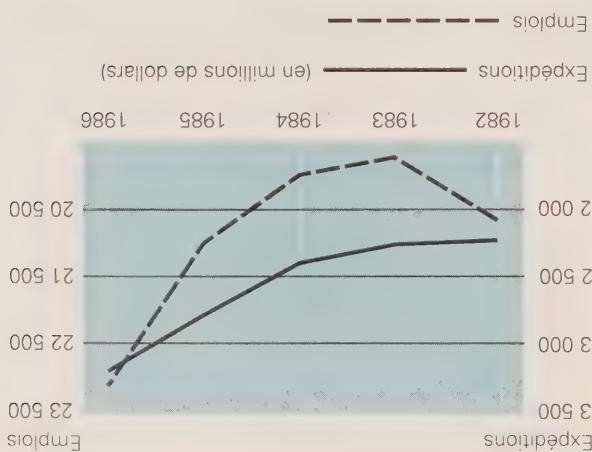
Proximité des marchés africains.
L'industrie canadienne du ciment et du béton

producteurs de ciment, ce qui procure un avantage concurrentiel à cette industrie canadienne et concurrence son assise. Jusqu'à tout récemment, les sociétés américaines anti-trust interdisaient un tel degré d'intégration verticale aux producteurs américains. En raison de l'intérêt de la concurrence

canadiennes, les importations de produits de béton sont relativement faibles.

Facteurs technologiques

Le sous-secteur canadien du ciment qui fait appelle à la technologie est rentable selon les normes mondiales. Par contre, dans le sous-secteur des produits de béton, l'utilisation de techniques de pointe varie énormément d'une entreprise à l'autre. Les grands fabricants disposent habituellement de la dernière technologie, mais beaucoup de petites entreprises n'ont pas les moyens de faire.



Redemption

de ciment. Les bénéfices après impôts et de chiffre d'affaires de 4,2 p. 100 en 1985, le sous-sécteur des produits de bétон est nettement moins rentable que celui du ciment. Par contre, les entreprises de ce sous-sécteur ont toujours eu un ratio d'endettement inférieur à celui des producteurs de ciment.

Au cours de la dernière décennie, le sous-sol est devenu un véritable laboratoire pour l'exploration et l'exploitation des ressources minérales. Les recherches ont permis de découvrir de nombreux gisements de minéraux rares et précieux, tels que l'uranium, le cobalt, le nickel, le cuivre et le zinc. Ces découvertes ont entraîné une croissance importante de l'industrie minière et ont contribué à l'économie nationale. Cependant, l'exploitation de ces gisements a également entraîné des dégâts environnementaux et sociaux importants, tels que la dégradation des sols et des eaux, la déforestation et la dégradation des terres agricoles. Ces dégâts ont été causés par la déforestation pour la construction des routes et des infrastructures, la dégradation des sols par l'excavation et la dégradation des eaux par la pollution industrielle. Ces dégâts ont entraîné une diminution de la biodiversité et une dégradation de l'environnement. Cependant, les recherches et les efforts pour la protection de l'environnement et la durabilité sont en cours, et l'industrie minière continue de contribuer à l'économie nationale tout en respectant les principes de la durabilité et de la protection de l'environnement.

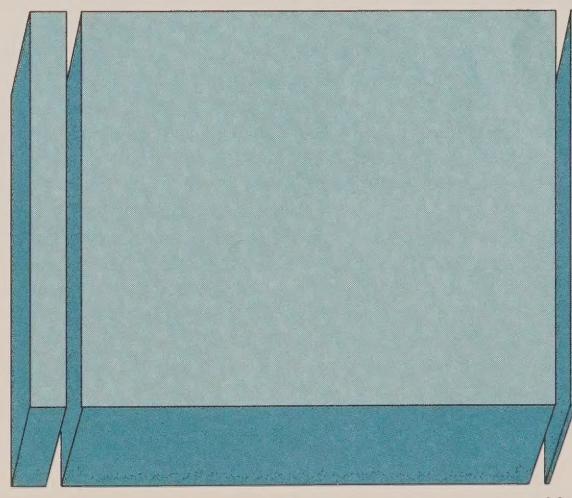
Etant donné son faible rapport valeur/poids, le client est habituélement à faire rapporter dans un rayon de quelques centaines de kilomètres de l'usine, le gros des expéditions étant livré à des clients situés à moins de 100 km. L'exportation vers des destinations lointaines, qui se fait par voie d'eau, n'est rentable qu'en raison du coût modique du transport fluvial et transocéanique. Les camionnettes installées près des voies de navigation disposent donc d'un certain avantage sur celles situées à l'abri dans les villes.

1986 - Importations, exportations et expéditions

Bar chart showing Exportations (Expeditions) and Expéditions intérieures (Interior Expeditions) in millions of dollars for 1936 and 1937.

| Année | Exportations (Expeditions) | Expéditions intérieures (Interior Expeditions) |
|-------|----------------------------|--|
| 1936 | 231 | 3 002 |
| 1937 | 366 | 3 012 |

(en millions de dollars)



George Washington

Les cimenteries sont souvent situées près de la source de matières premières, soit surtout les carrières de roche calcaire. La plupart se trouvent en Ontario et au Québec, ces régions assurent 38 et 27 p. 100 respectivement de la production canadienne; le reste est réparti comme suit : Prairies, 21 p. 100; Colombie-Britannique, 9 p. 100 et région de l'Atlantique, 5 p. 100.

Le ciment Portland est le plus important en volume de production et en valeur. Il est fabriqué par calcination, le plus souvent dans un four rotatif, d'un mélange exactement dosé de chaux, de silice, d'alumine et d'oxyde de fer réduits en fine poudre. Il en résulte un matériau gris granuleux appelé ciment qui est ensuite finement broyé et additionné de gypse pour donner la poudre de ciment.

Le sous-sol est en effet un véritable réservoir d'eau souterraine qui peut être exploité pour l'alimentation en eau potable. Cependant, il est important de prendre en compte les risques liés à la pollution de l'eau souterraine, tels que les déchets industriels et les déchets domestiques. Il est également nécessaire de protéger les sources d'eau souterraine contre les activités humaines qui peuvent entraîner la dégradation de la qualité de l'eau.

Le sous-secteur canadien du climat, qui est très capitaliste, se caractérise par une forte intégration verticale. Ainsi, dans une région donnée, certains produits fabriqués dans le secteur de la construction sont utilisés dans le secteur de la fabrication de biens de consommation. Les produits du secteur de la fabrication sont ensuite vendus à d'autres secteurs, tels que le secteur de la construction et le secteur de la fabrication de biens de consommation.

Ces 3 sous-secteurs se composent d'entreprises sasisonnières dont l'activité dépend énormément de celle du secteur de la construction. En 1998, l'industrie du ciment et du béton emploie à 23 100 personnes et pour 3,2 milliards de dollars de produits, les exportations s'élèvent à 231 millions, à 36 millions. Le ciment représente 26 p. 100 de la valeur des expéditions; les produits de béton, 28 p. 100 et la brique, 16 p. 100.

Le béton est un matériau composite qui comprend 3 sous-sécrétariats distinctifs, axes sur les marchés régionaux. Il s'agit de la fabrication du ciment, produit composé d'aggregats minéraux qui, mélangé à de l'eau et des adjuvants chimiques, donne le béton. Cela comprend 3 sous-sécrétariats de la construction qui sont les bureaux de l'emploi, produit intermédiaire utilisé dans les chantiers, et les bureaux de la construction.

1. Structure et rendement

CIMENT ET BETON DE LINDESTRÉE

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Etant donné l'évolution actuelle des échanges commerciaux et leur dynamique, l'industrie canadienne, de soutenir la concurrence internationale. Le profil présente dans ces pages fait partie d'une série de documents qui sort des évaluations sommaires de la compétitivité de certains secteurs industriels. Ces évaluations tiennent compte des facteurs de la compétitivité de certains secteurs

Centre Série est publié au moment même où des dispositions sont prises pour créer le ministère de l'Industrie, des Sciences et de la Technologie, fusion indissoluble de l'Expansion industrielle.

Charge des sciences et de la Technologie. Ces documents servent mis à jour régulièrement et ferment partie des publications du nouveau ministère. Je souhaite que ces profils soient utiles à tous ceux qui l'expansion industrielle du Canada intéressent qu'il soit servi de base aux discussions sur l'évolution, les perspectives et l'orientation stratégique de l'industrie.

Bureaux

régiōnaux

| | | | | | | | | | | | | | | |
|---------------------------|---------------------------|----------------------|-----------------------------|---------------------------|-----------------------|-----------------------------|---------------------------|-----------------------|-----------------------------|---------------------------|-----------------------|-----------------------------|---------------------------|---------------------------|
| Nouveau-Brunswick | 770, rue Main | C.P. 1210 | 770, rue Main | C.P. 1210 | 770, rue Main | C.P. 1210 | 770, rue Main | C.P. 1210 | 770, rue Main | C.P. 1210 | 770, rue Main | C.P. 1210 | 770, rue Main | C.P. 1210 |
| Nouvelle-Écosse | 1496, rue Lower Water | C.P. 940, succ. M | HALIFAX | (Nouvelle-Écosse) | 1496, rue Lower Water | C.P. 940, succ. M | HALIFAX | 1496, rue Lower Water | C.P. 940, succ. M | HALIFAX | 1496, rue Lower Water | C.P. 940, succ. M | HALIFAX | 1496, rue Lower Water |
| Manitoba | 330, avenue Portage | bureau 608 | C.P. 981 | bureau 608 | C.P. 981 | bureau 608 | C.P. 981 | bureau 608 | C.P. 981 | bureau 608 | C.P. 981 | bureau 608 | C.P. 981 | bureau 608 |
| Saskatchewan | 105, 21e Rue est | 6e étage | SASKATOON (Saskatchewan) | 105, 21e Rue est | 6e étage | SASKATOON (Saskatchewan) | 105, 21e Rue est | 6e étage | SASKATOON (Saskatchewan) | 105, 21e Rue est | 6e étage | SASKATOON (Saskatchewan) | 105, 21e Rue est | 6e étage |
| Alberta | 105, 21e Rue est | 750 0B3 | SAKATCHEWAN | 105, 21e Rue est | 750 0B3 | SAKATCHEWAN | 105, 21e Rue est | 750 0B3 | SAKATCHEWAN | 105, 21e Rue est | 750 0B3 | SAKATCHEWAN | 105, 21e Rue est | 750 0B3 |
| Ontario | 1, rue Front ouest | 4e étage | TORONTO (Ontario) | 1, rue Front ouest | 4e étage | TORONTO (Ontario) | 1, rue Front ouest | 4e étage | TORONTO (Ontario) | 1, rue Front ouest | 4e étage | TORONTO (Ontario) | 1, rue Front ouest | 4e étage |
| Yukon | 108, rue Lambeau | bureau 301 | WHITEHORSE (Yukon) | 108, rue Lambeau | bureau 301 | WHITEHORSE (Yukon) | 108, rue Lambeau | bureau 301 | WHITEHORSE (Yukon) | 108, rue Lambeau | bureau 301 | WHITEHORSE (Yukon) | 108, rue Lambeau | bureau 301 |
| Territoires du Nord-Ouest | Territoires du Nord-Ouest | X1A 1C0 | (Territoires du Nord-Ouest) | Territoires du Nord-Ouest | X1A 1C0 | (Territoires du Nord-Ouest) | Territoires du Nord-Ouest | X1A 1C0 | (Territoires du Nord-Ouest) | Territoires du Nord-Ouest | X1A 1C0 | (Territoires du Nord-Ouest) | Territoires du Nord-Ouest | Territoires du Nord-Ouest |
| Quebec | Tour de la Bourse | 800, place Victoria | VANCOUVER | Tour de la Bourse | 800, place Victoria | VANCOUVER | Tour de la Bourse | 800, place Victoria | VANCOUVER | Tour de la Bourse | 800, place Victoria | VANCOUVER | Tour de la Bourse | Tour de la Bourse |
| Colombie-Britannique | Scotiabank Tower | 9e étage, bureau 900 | C.P. 11610 | Scotiabank Tower | 9e étage, bureau 900 | C.P. 11610 | Scotiabank Tower | 9e étage, bureau 900 | C.P. 11610 | Scotiabank Tower | 9e étage, bureau 900 | C.P. 11610 | Scotiabank Tower | Scotiabank Tower |
| Terre-Neuve | Parsons Building | 90, avenue O'Leary | ST. JOHNS (Terre-Neuve) | Parsons Building | 90, avenue O'Leary | ST. JOHNS (Terre-Neuve) | Parsons Building | 90, avenue O'Leary | ST. JOHNS (Terre-Neuve) | Parsons Building | 90, avenue O'Leary | ST. JOHNS (Terre-Neuve) | Parsons Building | Parsons Building |
| Terre-Neuve | Confédération Courf Mall | bureau 400 | CHARLOTTETOWN | Confédération Courf Mall | bureau 400 | CHARLOTTETOWN | Confédération Courf Mall | bureau 400 | CHARLOTTETOWN | Confédération Courf Mall | bureau 400 | CHARLOTTETOWN | Confédération Courf Mall | Confédération Courf Mall |
| Île-du-Prince-Édouard | 134, rue Kent | C.P. 1115 | HALIFAX | 134, rue Kent | C.P. 1115 | HALIFAX | 134, rue Kent | C.P. 1115 | HALIFAX | 134, rue Kent | C.P. 1115 | HALIFAX | 134, rue Kent | Île-du-Prince-Édouard |
| Nouvelle-Écosse | Confédération Courf Mall | C.P. 666-7400 | CHARLOTTETOWN | Confédération Courf Mall | C.P. 666-7400 | CHARLOTTETOWN | Confédération Courf Mall | C.P. 666-7400 | CHARLOTTETOWN | Confédération Courf Mall | C.P. 666-7400 | CHARLOTTETOWN | Confédération Courf Mall | Nouvelle-Écosse |
| Terre-Neuve | Confédération Courf Mall | C.P. 566-7400 | C.JA 7M8 | Confédération Courf Mall | C.P. 566-7400 | C.JA 7M8 | Confédération Courf Mall | C.P. 566-7400 | C.JA 7M8 | Confédération Courf Mall | C.P. 566-7400 | C.JA 7M8 | Confédération Courf Mall | Terre-Neuve |
| Terre-Neuve | Confédération Courf Mall | C.P. 5950 | A1B 3R9 | Confédération Courf Mall | C.P. 5950 | A1B 3R9 | Confédération Courf Mall | C.P. 5950 | A1B 3R9 | Confédération Courf Mall | C.P. 5950 | A1B 3R9 | Confédération Courf Mall | Terre-Neuve |
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Canada

Ciment et béton

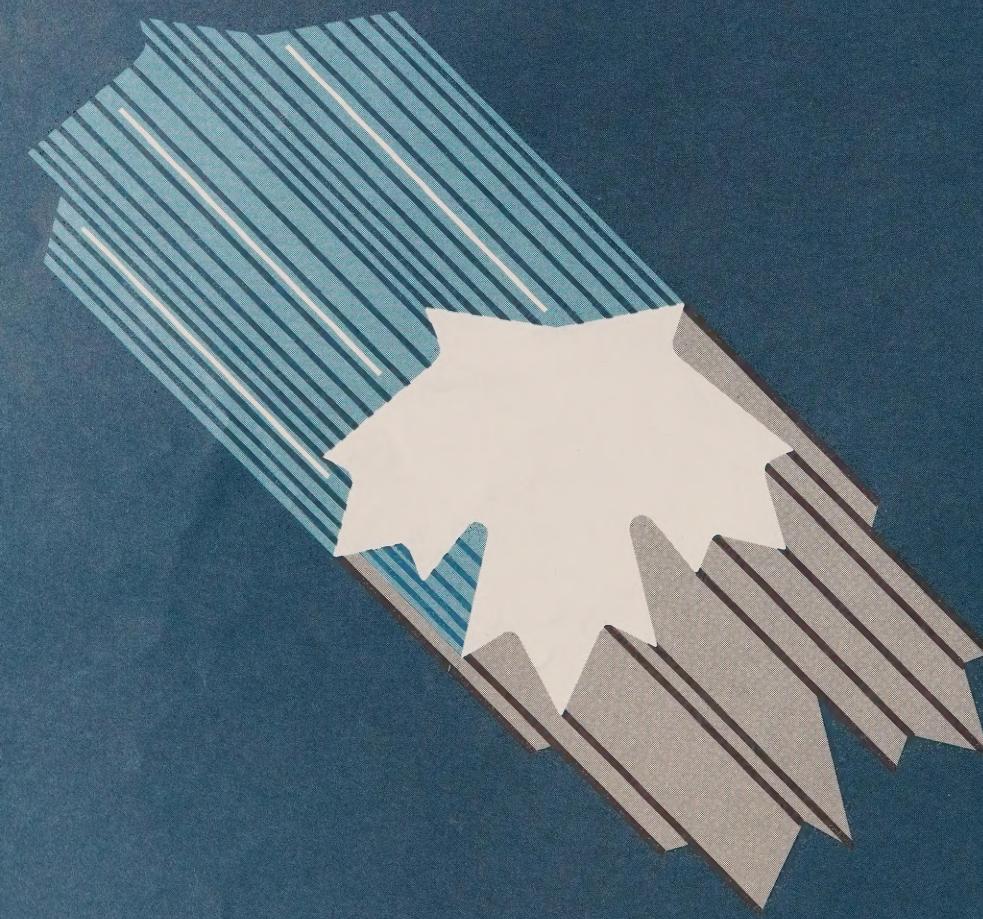


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